

ABSTRACT

A cardiac ablation device treats atrial fibrillation by directing and focusing ultrasonic waves into a ring-like ablation region (A). The device desirably is steerable and can be moved between a normal disposition, in which the ablation region lies parallel to the wall of the heart for ablating a loop-like lesion, and a canted disposition, in which the ring-like focal region is tilted relative to the wall of the heart, to ablate only a short, substantially linear lesion. The ablation device desirably includes a balloon reflector structure (18, 1310) and an ultrasonic emitter assembly (23, 1326), and can be steered and positioned without reference to engagement between the device and the pulmonary vein or ostium. A contrast medium (C) can be injected through the ablation device to facilitate imaging, so that the device can be positioned based on observation of the images.

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